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(71) Applicant: **UNIVERSITY OF CONNECTICUT**
[US/US]; 263 Farmington Avenue, Farmington, CT
06030-6207 (US).

(72) Inventors: **LI, Yi**; 15 Sawmill Brook Lane, Mansfield Center, CT 06250 (US). **O'DONNELL, Colum, P.**; P.O. Box 2000, Carlisle, MA 01741 (US). **DUAN, Hui**; 1 Northwood Road-Apt. 15, Storrs, CT 06268 (US). **WU, Yan, Hong**; 15 Sawmill Brook Lane, Mansfield Center, CT 06250 (US). **MCAVOY, Richard**; 68 Brookside Lane, Mansfield Center, CT 06250 (US).

(74) Agent: **COUGHLIN, Daniel, F.**; Cummings & Lockwood, 700 State Street, P.O. Box 1960, New Haven, CT 06509-1960 (US).

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(54) Title: METHODS FOR THE CONTROLLED, AUTOMATIC EXCISION OF HETEROLOGOUS DNA FROM TRANSGENIC PLANTS AND DNA-EXCISING GENE CASSETTES FOR USE THEREIN

XS₁ >	XS₂ >	Pro-1/R₁	Pro-2/R₂	TG	MG	XS₂ >	XS₁ >
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(57) Abstract: As disclosed herein, the present invention is directed to unique gene cassettes, and methods for their use, wherein the gene cassettes comprise multifunctional transgenic DNA sequences that completely, or nearly completely, excise themselves from the genome of plants into which they are introduced. The excision process is triggered in response to specific internal or external stimuli by means of excision/recombinase systems in unique combinations and orientations within the multifunctional transgenic sequences. Complete, or nearly complete, removal of the heterologous DNA significantly reduces the possibility of uncontrolled propagation of the transgenic species and may, more importantly, permit crops produced from transgenic plants to be co-mingled with non-transgenic crops for marketing purposes.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12N15/82

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, CHEM ABS Data, EMBASE, LIFESCIENCES, MEDLINE, PAJ, SCISEARCH, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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Patent family members are listed in annex.

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Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Pilat, D

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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